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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,830	11/28/2000	Dipayan Gangopadhyay	08111-017002	7731

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EXAMINER	
DAS, CHAMELI	
ART UNIT	**PAPER NUMBER**
2122	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/724,830	GANGOPADHYAY ET AL	
	Examiner	Art Unit	
	CHAMELI C DAS	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P riod for R ply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4* is/are allowed.

6)☒ Claim(s) *1-3 and 5-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This action is in response to the RCE filed on 12/20/2004.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Doyle (US 4,928,247).

As per claim 1, Doyle (US 4,928,247) discloses:

- a process modeling tool for graphically representing a process which includes transactions and events (Abstract, col 6 lines 12-17, "The primary function of the graphics subsystems ... manipulate and display the graphics data structures"), a process which includes transactions and events (col 2,lines 47-62. " Each node is defined as a fundamental memory unit to contain graphics data or ***commands*** relating to the primitives, transformations... display by the graphic processing components of the graphics subsystem"), where "commands" are the transactions and "displaying the information" is the events as claimed
- a computer system (col 5, lines 10-15), including a display device a data storage device, and a user interface device (Fig 1)

- a graphical tool which a user operates through the user interface device to create a graphical representation of the transactions and events with graphical symbols shown on the display device (col 6, lines 35-47, "the graphics pipeline processor 29 organizes the data received from the structure walker 27 into packets and performs graphics transformations, matrix multiplication, ... Screen upon which the object is to be displayed"), where "implemented by a user" clearly shows that "user operates through the user interface", the graphics pipeline processor performs graphics transformations, matrix multiplication, clipping ... viewport mapping" clearly shows that the graphical tool creates a graphical representation implemented by the user, the graphical representation of the transactions and events are shown in column 18, lines 18-34 and col 9, lines 25-37), where the nodes, which are the executable commands (events) are displayed, clearly shows that the graphical representations of the events. The graphical transactions are shown in col 18, lines 23-26. The transactions and events are asynchronous is nature is shown in (col 2, lines 68- col 3, lines 1-16), where "asynchronous operation" shows the asynchronous transactions and in col 18, lines 18-23 shows the asynchronous events as claimed.

As per claim 2, Doyle (US 4,928,247) discloses:

- a process modeling tool for generating computer code, where the code is based upon a graphical representation of a process which includes transactions and events (col 9, lines 45-58), where "create the node" (col

9,lines 53) and the "node is a set of executable command data" (col 9,lines 30) inherently including "generating computer code". Send the commands (events) and data down the graphics pipeline, where they eventually result in the display of the object, inherently including "the code is based upon a graphical representation of a process as claimed

- a computer system (col 5, lines 10-15), including a display device a data storage device, and a user interface device (Fig 1)
- a graphical tool which a user operates through the user interface device to create a graphical representation of the transactions and events with graphical symbols shown on the display device (col 6, lines 35-47, "the graphics pipeline processor 29 organizes the data received from the structure walker 27 into packets and performs graphics transformations, matrix multiplication, ... Screen upon which the object is to be displayed"), where "implemented by a user" clearly shows that "user operates through the user interface", the graphics pipeline processor performs graphics transformations, matrix multiplication, clipping ... viewport mapping" clearly shows that the graphical tool creates a graphical representation implemented by the user, the graphical representation of the transactions and events are shown in column 18, lines 18-34 and col 9, lines 25-37), where the nodes, which are the executable commands (events) are displayed, clearly shows that the graphical representations of the events. The graphical transactions are shown in col 18, lines 23-26. The transactions and events are asynchronous

is nature is shown in (col 2, lines 68- col 3, lines 1-16), where "asynchronous operation" shows the asynchronous transactions and in col 18, lines 18-23 shows the asynchronous events as claimed

- a traversal tool which traverses the graphical representation (Abstract)
- a code generator which generates computer code (col 9, lines 53-55),
- in response to information contained in the graphical representation and information received from the traversal tool (col 9, lines 25-50),
- computer code is stored on the data storage device and in executable on the computer system to cause the computer system to perform one or more operations which emulate the process shown in the graphical representation (col 2 lines 47-62) and (col 5, lines 65-68).

For claim, 3, see the rejections of claim 1 and 2 above.

As per claim 5, Doyle discloses:

- a method for modeling a process a process including transactions and events using a graphical representation (abstract, col 18, lines 18-34)
- creating a graphical representation of the transactions and events with graphical symbols, where one or more of such transactions and events may of an asynchronous nature (col 8, lines 18-34) and col 9, lines 30-50, "structure walker 27 extracts ***the commands*** and data and sends them down the graphics pipeline, where they eventually result in the ***display of the object*** defined by the data structure", where the "commands" are the events

and "display of the object" inherently including graphical symbols of the events, and col 9,lines 65-67, shows the transactions with graphic symbol

- traversing the graphical representation of the process (col 9 lines 9-20)
- generating computer code to represent functions and execution flow within the process, (col 9, lines 45-58), where "create the node" (col 9,lines 53) and the "node is a set of executable command data" (col 9,lines 30) inherently including "generating computer code"
- where the computer code is executable on a computer system (col 9,lines 30).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle, 4,928,247 (US 4,928,247) and further in view of the background of the present application and the official notice taken by the examiner.

Regarding claim 6, Doyle discloses:

- creating a graphical representations of the process (col 2 lines 24-40)
- functions within the process are represented as action nodes (col 2 lines 47-50)

- events within the process are represented as event links (col 9 lines 30-35)
- generation of events within the process is represented by node (col 9 lines 30-55)
- synchronization of two or more asynchronous events within the process (col 57 lies 43-50)
- repetitive functions within the process (col 18 lines 19-30), all the functions are represented by the nodes.

Doyle does not specifically dislcose parallel events. However, the background section of the present application discloses parallel events (specification, page 2, lines 6-11). The modification would be obvious because one of the ordinary skill in the art would be motivated to group the different actins of the process or nor nodes in the system.

Doyle does not specifically dislcose "split node", "join node" and "repetition node". However, the official notice is taken for "split node", "join node" and "repetition node". The modification would be obvious because one of the ordinary skill in the art would be motivated to identify the nodes according to their actions.

As per claim 7, Doyle discloses

- creating a graphical representation of the process ... action nodes (Abstract, col 2 lines 62-68, col 3 lines 1-16)
- events within the process are represented as event links (col 9 lines 30-35)

- independent events (col 2, lines 65-68 and col 3 lines 1-4), where "each of the competing graphics application ***views the graphics processing subsystem as its own*** and is able to execute", clearly shows that this event is the independent even, all the events are represented as nodes (col 9 lines 29-32)
- exceptions (col 34, lines 35-37), generation of events (col 9 lines 30-55). Doyle discloses all the events are represented as nodes (col 9 lines 29-32)

For the rest of the limitations see the rejection of claim 6 above.

Allowable subject matter

6. Claim 4 is allowable.

7. The prior art made or record and not relied upon is considered pertinent to applicant's disclosure.

TITLE: Method and apparatus for interactively generating a computer program for machine vision analysis of an object, US 5481712 A

TITLE: Architectures and methods for dividing processing tasks into tasks for a programmable real time signal processor and tasks for a decision making microprocessor interfacing therewith, US 5287511 A

TITLE: Method and apparatus in a data processing system for systematically serializing complex data structures, US 6292933 B1

TITLE: Usage based methods of traversing and displaying generalized graph structures, US 6509898 B2

TITLE: Display of system information, US 6046742 A

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chameli Das whose telephone number is 571-272-3696.

The examiner can normally be reached on Monday-Friday from 6:30 A.M. to 3:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Tuan Dam can be reached at 571-272-3695. The fax number for this group are:

(703) 746-7239 (official fax), (703) 746-7240 (non-official/draft), (703)746 -7238 (after final).

An inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-9600.

Chameli C. Das
CHAMELI DAS
PRIMARY EXAMINER
1/19/05